Dr. Troy J. Tranter

Significant research in the design and synthesis of nano-scale composites and other engineered materials for performing selective separations in complex matrices.

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Education
Dr. Troy Tranter received his Ph.D. and M.S. degrees in chemical engineering from the University of Idaho and his B.S. in environmental science and chemistry from Arkansas Tech University in 1983.

Experience and Achievements
Dr. Tranter has more than 22 years experience in nuclear fuel reprocessing, uranium enrichment, and nuclear reactor technologies. He is recognized within the DOE, industry, and international communities for expertise in the fields of radiochemistry and radionuclide separations.

Dr. Tranter's research interests are focused on the development of novel separation technologies pertaining to a wide range of applications in the nuclear fuel cycle, water treatment, environmental remediation, and national security arenas. Interests also include the development of numerical simulation techniques for the design and optimization of transient separation processes. His current work involves the synthesis of selective, nano-scale composite adsorbents for which he has been recognized by receiving the R&D 100, NASA Nano-50, and Federal Laboratory Consortium awards. He is also part of a collaborative effort to develop highly selective purification processes for radioisotopes that are crucial to the next generation of cancer therapies. Dr. Tranter's research has led to license agreements for water treatment and medical isotope recovery technologies as well as numerous peer-reviewed publications.

Awards
Nano-Composite Arsenic Sorbent N-CAS - 2006 (R&D 100 Awards; Nano50 Award; Federal Laboratory Consortium Awad; Stoel-Rives Idaho Innovation Award)

INL'S LIFETIME ACHIEVEMENT AWARD FOR INVENTORSHIP

Patents

- U.S Patent 5,802,438- Method for Generating a Crystalline $^{99}MoO_3$ Product and the Isolation ^{99m}Tc Compositions Therefrom
- U.S. Patent 6,444,162 - Open-Cell Glass Crystalline Porous Material
- U.S. Patent 6,472,579 - Method for Solidification of Radioactive and other Hazardous Waste
- U.S. Patent 6,514,566 - Ion Processing Element with Composite Media
- U.S. Patent 6,951,634 - Process for Recovery of Daughter Isotopes from a Source Material